Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	
	)	
Petition of City of Richardson, Texas	)	
	)	

SPRINT PCS PETITION FOR EXPEDITED RECONSIDERATION AND CLARIFICATION

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Summary

The changes the Commission made in its *Richardson Order*, while an improvement, do not fully achieve the stated objectives to "avoid the unnecessary expenditure of carrier and PSAP resources" so that operational E911 systems become activated efficiently and promptly. Sprint PCS submits that the following additional changes will help ensure that operational wireless E911 systems can be activated as rapidly as possible:

1. The FCC rules require that a PSAP be capable of receiving and utilizing the data elements associated with Phase II service, and PSAPs will receive Phase II service only if their ALI databases have been upgraded to accommodate Phase II location information. The FCC should therefore reconsider its requirement that PSAPs only make a request for necessary ALI upgrades and, instead, require that PSAPs receive a commitment to have such upgrades completed within six months.
2. If the goal is to activate as many Phase II systems as early as possible, the FCC should reconsider its decision not to implement a standardized interface for Phase II service, because a standardized interface will simplify and accelerate installations. Alternatively, the FCC should adjust the six-month period for customized installations because customized solutions necessarily will take longer to implement than standardized installations.
3. Phase II location data will often not be available when the PSAP first requests the information because the location cannot be calculated within the time permitted by call set up. The FCC should therefore confirm that the ALI database upgrade required includes the ability to pull and refresh data from wireless databases after call set up is completed, to ensure that the PSAP actually receives Phase II data.
4. The FCC should confirm that the six-month implementation period is tolled while a PSAP assembles its supporting documentation. A carrier should not be penalized because a PSAP requires additional time to provide documentation that the FCC has determined is appropriate.

Finally, Sprint PCS asks that the Commission act expeditiously on this petition. Because of the importance of these issues to public safety and the American public, Sprint PCS urges the Commission to render its reconsideration order before OMB approval is obtained.

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SPRINT PCS PETITION FOR EXPEDITED CLARIFICATION AND RECONSIDERATION

Sprint Spectrum L.P. d/b/a Sprint PCS ("Sprint PCS"), petitions the Commission to clarify and reconsider portions of its October 17, 2001 *Richardson Order*.[1] As demonstrated below, the rules that the Commission adopted, while a step forward, will not achieve their stated objective: ensure that operational wireless E911 systems will be activated as rapidly as possible.[2]

Sprint PCS asks the Commission to act expeditiously on this petition. As demonstrated below, the proposals that Sprint PCS makes herein will help ensure that PSAP and carrier resources are used productively which, in turn, will maximize the number of operational wireless E911 systems that can be activated in the near future. Thus, the sooner the Commission acts on these proposals, the sooner the resulting benefits can be achieved.

It appears, moreover, that the Commission has a unique opportunity to clarify its new rules. The Commission has stated that the new rules will not take effect until they are approved

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[1] *See Richardson Order,* CC Docket No. 94-102, FCC 01-293 (Oct. 17, 2001), *summarized in* 66 Fed. Reg. 55618(Nov. 2, 2001).

by the Office of Management and Budget ("OMB"), and it established January 2, 2002 as the date for parties to submit comments concerning the proposed information collections.[3] It would therefore appear that OMB approval will not be secured for some time.[4]

In all events, because of the importance of these issues to public safety and the American public, Sprint PCS urges the Commission to render its reconsideration order as soon as practical. Delays in rendering a decision will needlessly delay the prompt activation of wireless E911 services nationwide, as demonstrated below.

I. THE NEW RULES WILL NOT ACHIEVE THE STATED OBJECTIVE: TO ENSURE THAT WIRELESS E911 SERVICE BECOMES OPERATIONAL AS SOON AS POSSIBLE

There is broad consensus among all parties in the common objective: ensure that Phase II wireless E911 service becomes operational as soon as possible. The task is daunting. There are more than 6,000 different public safety answer points ("PSAPs"), and many PSAPs must install E911 systems with five (or more) different wireless carriers. Although it took 20 years before basic 911 service was available to half of all incumbent LEC customers, the public safety community has established a goal that wireless Phase II E911 service will be installed nationwide within four years.[5] This four-year goal is aggressive, given the complexity of the technology and the number of parties necessary to the conversion process. However, Sprint PCS accepts public safety's four-year challenge, and it will work with public safety to help achieve this goal.

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[2] Although the FCC intends that the new rules will apply to both Phase I and Phase II service (*see Order* at n.2), the public notice and request for comments addressed only Phase II service. *See Public Notice,* DA 01-1623, 13670 (July 10, 2001), *summarized* in 66 Fed. Reg. 36989 (July 16, 2001).

[3] *See Richardson Order*, 66 Fed. Reg. 55618, 55622 ¶ 42 (Nov. 2, 2001).

[4] Sprint PCS is therefore perplexed by the FCC's announcement that it has received OMB approval and that the new rules took effect on November 30, 2001, when public OMB comments have not even been submitted. *See* 66 Fed. Reg. 59719 (Nov. 30, 2001).

[5] *See* NENA, Report Card to the Nation, at 13 (Sept. 11, 2001).

Given the magnitude of the task, the rapid activation of operational Phase II E911 systems will occur only if the parties are able to implement Phase II efficiently. As the Commission has noted, it is important to "avoid the unnecessary expenditure of carrier and PSAP resources," and it adopted its rule modifications to "help ensure that none of the parties expends resources unnecessarily."[6] Sprint PCS concurs in these objectives, and it is for this reason that it recommends several rule modifications and clarifications.

A. Conversion of Individual Systems Should Not Begin Unless the PSAP Documents That Its ALI Database Will Be Phase II Capable Within Six Months

Three events must occur before wireless Phase II E911 service will become operational. One, a CMRS carrier must be Phase II ready (*i.e.*, its network must be capable of retrieving and calculating precise location information and then forwarding that information to the PSAP, either directly (CAS) or indirectly *via* an ALI database (NCAS). Sprint PCS' nationwide network will be Phase II ready by May 30, 2002 (Lucent markets) and August 1, 2002 (Nortel markets), and FCC rules generally require Sprint PCS to implement a Phase II system within six months of a valid request.[7]

Two, the PSAP must upgrade its call taker equipment. FCC Rule 20.18(j) specifies that a carrier's E911 conversion obligations are not triggered unless the PSAP "is capable of receiving and utilizing the data elements associated with the service."[8] The Commission clarified in the *Richardson Order* that to make a valid request, a PSAP must demonstrate that it has "ordered the necessary equipment to receive and utilize the E911 data and the equipment will be installed and

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[6] *Richardson Order* at ¶¶ 1 and 11.

[7] The FCC recently granted to Sprint PCS a waiver whereby it need not complete until December 31, 2002 Phase II requests received before July 1, 2002. *See Sprint PCS Phase II Waiver Order,* Docket No. 94-102, FCC 01-297 (Oct. 12, 2001).

[8] A PSAP must also have in place a mechanism by which it will recover the costs of making necessary Phase II upgrades. *See Richardson Order* at ¶ 1.

capable of receiving and utilizing that data no later than six months following its request."[9] The Commission imposed this requirement to assure that the PSAP "will be ready to receive . . . Phase II information at the time that the wireless carrier's obligation to deliver that information becomes due":[10]

> This information will ensure that PSAPs and carriers are working with the same knowledge, thus avoiding delays in implementing E911 service or unnecessary or premature investments due to confusion over the PSAP's preparedness.[11]

These carrier and PSAP upgrades will *not*, however, result in an operational Phase II service. Rather, Phase II service can become operational *only* when the PSAP's ALI database has also been upgraded to accommodate Phase II service. As the Commission has correctly noted:

> Phase II requires an additional upgrade to the ALI database so that it will query the [carrier's] Mobile Positioning Center (MPC) at the appropriate time to acquire the Phase II latitude/longitude data.[12]

The Commission has ruled that "PSAPs are responsible for any upgrades necessary to the ALI database,"[13] although most PSAPs have their incumbent LEC operate their ALI databases on their behalf. Phase II upgrades to ALI databases are an indispensable precondition to the activation of an operational Phase II wireless E911 system. Simply put, without appropriate upgrades to the ALI database, a PSAP will not receive operational Phase II service or, in the words

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[9] *Richardson Order* at ¶ 1. A PSAP may alternatively demonstrate that it is "Phase I-capable using a Non-call Associated Signaling (NCAS) technology." *Id.*

[10] *Richardson Order* at ¶ 1.

[11] *See* 66 Fed. Reg. At 55619 ¶ 9.

[12] *Richardson Order* at ¶ 17.

[13] Letter from Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau, to R. Davis, Program Manager, King County E-911 Program Office, at 6 (May 9, 2001("King County Letter").

of the governing rules, will not be capable of "receiving and utilizing the data elements associated with the service."[14]

In the *Richardson Order*, the Commission held that a PSAP request will be deemed valid if "the PSAP has made a timely request to the appropriate local exchange carrier (LEC) for . . . any necessary Automatic Identification Location (ALI) database upgrades, to enable the E911 data to be transmitted to the PSAP."[15] The Commission did not, however, the require the PSAP to demonstrate that the ALI database upgrades be completed within the same six months that the PSAP completes upgrades to its call taker equipment — even though the evidence in the record suggests that numerous incumbent LECs have no intent of upgrading their ALI databases in the near future.[16] The Commission should reconsider this decision for both legal and practical reasons.

FCC rules provide unequivocally that a carrier's E911 obligations apply "only if" the PSAP "is capable of receiving and utilizing the data elements associated with the service."[17] A carrier may be Phase II ready and install necessary Phase II trunks and a PSAP may upgrade its call taker equipment, but the PSAP will not be capable of receiving Phase II data *unless and until* necessary Phase II upgrades have been made to the ALI database.

In addition, the Commission's decision not to require a PSAP to demonstrate that ALI database upgrades will be installed within six months of its request for service also undermines the very objectives that the Commission sought to achieve with its Richardson Order — namely, "to verify that the PSAP is in reality capable of receiving and using E911 data," and thereby

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[14] 47 C.F.R. § 20.18(j).

[15] *Richardson Order* at ¶ 1.

[16] *See, e.g.,* Sprint PCS Further Supplemental Report, Docket No. 94-102 (Sept. 4, 2001), Exhibit 2 ("BellSouth will not offer a Phase II solution.").

[17] 47 C.F.R.§ 20.18(j).

"avoiding delays in implementing E911 service or unnecessary or premature investments due to confusion over the PSAP's preparedness."[18]

No one – PSAPs or carriers – benefits by beginning the installation of a Phase II system so it can be operational in six months if the ALI database upgrades are not completed within the same six month period. Carrier resources are more productively expended on converting PSAP networks (including ALI databases) that are or will timely be Phase II capable, and a carrier's dedication of finite resources to E911 networks that are not ready may actually delay conversion of PSAPs whose networks are Phase II ready. PSAPs may likewise find that their resources are better spent in other areas if they know that their ALI database will not be upgraded timely. Purchasing and installing CPE that cannot be used because necessary upgrades to the ALI database have not been made is not a productive capital expenditure – particularly when prices for Phase II CPE can be expected to fall as the number of Phase II installations increases.

Because a PSAP will be incapable of receiving and utilizing Phase II location data without necessary upgrades to the ALI database, the Commission should confirm that PSAPs must document not only that the necessary CPE upgrades will be installed within six months, but also that necessary ALI database upgrades will be completed within six months. Upgrades to both CPE and the ALI database are needed for Phase II service. PSAPs should be aware that both must be installed within the same six-month window.

There is another approach that the Commission could adopt that would achieve the same objective but that may be more efficient for all involved. Most PSAPs have the incumbent LEC maintain their ALI databases, and it is common for one ALI database to support E911 services to multiple PSAPs in an area. Rather than have each PSAP contact the same LEC to pose the same

[18] 66 Fed. Reg. At 55619 ¶¶ 6 and 9.

question, the Commission could simply require LECs maintaining ALI databases to publish their Phase II upgrade schedules. Early publication of ALI database conversion schedules would enable both PSAPs and carriers to commence realistic implementation planning and resource allocation, and PSAPs, armed with this knowledge, could begin challenging conversion dates that they believe are unreasonable. Sprint PCS believes that efficiency would be enhanced by requiring all incumbent LECs operating ALI databases to publish their Phase II upgrade schedule, but it will defer to the views of the public safety community over which approach they prefer (LEC publication of upgrade schedule or each PSAP obtains the information individually).

Sprint PCS is committed to Phase II deployment (as evidenced by the fact that it was the only carrier to begin selling Phase II handsets on October 1, 2001). Its interests are to see to it that operational Phase II systems can be activated as soon as practical and that its finite resources are allocated efficiently and used productively. This objective will be achieved only if carriers can focus their implementation efforts on PSAP networks that are Phase II ready or will be Phase II ready by a specified date. A PSAP that has an E911 network (including an ALI database) that is Phase II ready should not encounter delays because carriers are instead devoting resources to PSAPs whose ALI databases will not be Phase II compatible. Such a result certainly would not be in the public interest – for PSAPs or the public they serve.

B. The Commission Should Either Reconsider the "E2 Interface" Issue or Adjust the Implementation Schedule for Customized E911 Installations

Industry and the public safety community developed the Phase II PSAP-carrier interface standard, J-STD-036, to reduce costs to all involved, to simplify the installation process, and to thereby accelerate the date the Phase II service can become operational. The Commission, while acknowledging that "it is necessary that some common interface standard be employed by the

carrier and the PSAP,"[19] declined to require PSAPs to use the standard (including the E2 interface) because it did not want "to dictate technical standards for the implementation of Phase I and II of E911 service."[20] The Commission should reconsider this decision if the goal is to accelerate the availability of operational Phase II systems. The universal use of one standardized interface will greatly facilitate E911 installations and will, in the process, greatly accelerate the date that Phase II systems can become operational.

Sprint PCS fears that the Commission may have misunderstood the "E2 interface" issue. The Commission declined to require use of the industry standard because it did not want to engage in "micromanagement" and did not want to "dictate solutions."[21] However, J-STD-036 does *not* dictate any solution that a PSAP (or its ILEC agents) must follow. To the contrary, the standard expressly states that the structure of a PSAP's E911 network, referred to in the standard as the Emergency Services Message Entity ("ESME"), is "beyond the scope of this Interim Standard, although some insight may be gained from Annex A."[22] Annex A, which is "informative" only and is "not considered part of this Interim Standard,"[23] recognizes eight different network architectures that ESMEs may employ.[24]

What the standard does is establish a common interfere between different network elements, as the Commission has recognized is "necessary" for Phase II service to work.[25] For example, there must be a link (or trunk) between an ALI database and a carrier's Mobile Position-

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[19] *Richardson Order* at n.31.

[20] *Id.* at ¶ 19.

[21] *Richardson Order* at ¶ 19.

[22] *See* TR-45, *Enhanced Wireless 9-1-1,* J-STD-036. Chapter 3, p. 3-4, § 4.4 (Rev.0, July 12, 2000)("J-STD-0036").

[23] J-STD-036, Annex A at A-1.

[24] *See id.*, Figures A-8 through A-15.

[25] *See Richardson Order* at n.31.

ing Center ("MPC"), and J-STD-025 refers to this connection as the E2 interface.[26] With an NCAS solution, the ALI database must "pull" the wireless location information from the MPC, where the wireless carrier computes the information. The standard specifies that the ALI database (or other equipment) would request this information by transmitting an Emergency Services Position Request ("ESPOSREQ") message.[27] The standard defines the protocols used within ESPOSREQ messages only at a very high level.[28] Thus, Sprint PCS cannot agree with the Commission's conclusion that adoption of the J-STD-036 standard would involve the Commission in "micromanagement" or result in particular PSAP solutions being dictated.

Wireless carriers have no choice but to implement their Phase II networks using equipment that complies with J-STD-036, since vendors will be building their modifications pursuant to this standard and since most vendors supply equipment to multiple carriers. Indeed, PSAPs would face chaos if each carrier implemented a different, non-standardized Phase II solution in its network. If, as the Commission has correctly recognized, it is "necessary that some common interface standard be employed by the carrier and the PSAP,"[29] prudence would suggest that the common interface standard should be the one adopted in J-STD-036, especially given that one of the parties to the interface (carriers) will be using this standard.

If, however, the Commission declines to reconsider the use of a standardized solution, it must then reconsider the time that carriers have to respond to Phase II requests involving customized installations. A customized installation will necessarily take more time to negotiate than negotiations involving a standardized solution (if only because a carrier needs time to understand

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[26] *See* J-STD-036, Chapter 3, at 3-3, Figure 3-1.

[27] *See* J-STD-036, Chapter 4, at 4-7, Figure 4-5 and § 2.2.1(f).

[28] *See* J-STD-036, Chapter 7. Emergency Services Protocol, and Chapter 9, Location Services Protocol.

[29] *Richardson Order* at n.31.

the PSAP proposal and then additional time to evaluate the feasibility of the proposal). A customized solution will also take longer to install compared to a standard installation. Yet, under the current rules, carriers have six months to install either a standard or a customized solution. Put another way, the Commission has effectively given carriers less time to install a more complex arrangement (because more time is spent in negotiations) even though a customized solution will take longer to install.

II. CERTAIN CLARIFICATIONS WOULD REMOVE THE POTENTIAL FOR FUTURE CONTROVERSY THAT WOULD NEEDLESSLY DELAY ACTIVATION OF OPERATIONAL E911 SYSTEMS

The Commission adopted its rule modifications in large part "to eliminate reasonable doubts about a PSAP's capability of receiving and utilizing the E911 data elements."[30] While the Commission has removed some ambiguity, there is additional ambiguity that it should remove. It is time for all parties – PSAPs and carriers – to move from debating the meaning of FCC requirements to implementing Phase II systems, and the Commission could greatly aid the process by making the two additional clarifications below.

A. The Commission Should Confirm That Phase II ALI Database Upgrades Must Include the "Pull" and "Refresh" Capabilities

The Commission, while declining to order PSAPs to use the standardized "E2 interface," has recognized that "Phase II requires an additional upgrade to the ALI database so that it will query the Mobile Positioning Center (MPC) at the appropriate time to acquire the Phase II latitude/longitude data."[31] In order to remove any ambiguity and further controversy if a PSAP elects to pursue a non-standard solution, Sprint PCS asks that the Commission confirm that when

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[30] 66 Fed. Reg. 55619 ¶ 5.

[31] *Richardson Order* at ¶ 17.

customized solutions are used, the ALI database must at minimum have the capability to "pull" Phase II data from the carrier MPCs and also be capable of making subsequent queries to the MPC if the Phase II data is not available at the time of the first query.

Sprint PCS has designed its MPCs consistent with the requirements of J-STD-036. (As noted above, there would be chaos if each carrier chose to implement its own customized Phase II PSAP interface.) The standard specifies that for the NCAS Phase II solution, the ALI database will "pull" the Phase II location data from the MPCs, or as the FCC has stated, "will query the [MPCs] . . . to acquire the Phase II latitude/longitude data."[32] The Commission should therefore confirm that even if a PSAP (or its LEC agent) chooses a customized Phase II solution, its recommended solution must have the capability of pulling the location information from carrier MPCs.[33]

Phase II location data may not be available to PSAPs when their ALI database initially requests the data from the MPCs (because of the complexity of collecting all the data elements and making the necessary computation). Because of this, industry designed J-STD-036 to include a "refresh" capability, whereby an ALI database makes additional requests for Phase II location data if the data is not available the first time that the ALI database requests the data (*i.e.*, as part of call set up). Without this "refresh" capability, a PSAP will often not receive Phase II location information.

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[32] *See Richardson Order* at ¶ 7. *See also* J-STD-036, Chapter 3, at 3-1 § 1 ("With CAS, the wireless network pushes the position information to an Emergency Services Network Entity (ESNS). With NCAS, an Emergency Service3s Massage Entity (ESME) pulls the position information from the wireless network.").

[33] J-STD-036 also addresses a CAS Phase II solution, where the Phase II location information is "pushed" to the selective router. However, Sprint PCS is not aware of a single E911 network operator that has agreed to update its selective router to accommodate the Phase II CAS solution. As a practical matter, then, and at least for PSAPs wanting Phase II service in the near future, PSAPs have one available Phase II solution: NCAS.

FCC rules require a PSAP to be "capable of receiving and utilizing the data elements associated with the service."[34] While the Commission has not required PSAPs to use the E2 interface, a PSAP using a customized interface is not "capable of receiving" Phase II location information unless, as the FCC has noted, the ALI database makes the query "at the appropriate time."[35] Sprint PCS therefore asks the Commission to confirm that if a PSAP (or its agent) desires to use a customized interface, its ALI database must include this "refresh" capability.

B. The Commission Should Confirm That the Six-Month Implementation Period Is Tolled While a PSAP Assembles Its Supporting Documentation

Wireless carriers are required by FCC rules to implement a Phase II request within six months.[36] However, the Commission has ruled that carriers may "challenge" a PSAP request by asking the PSAP to substantiate its Phase II readiness.[37] Some PSAPs may respond to a carrier request for documentation immediately. Other PSAPs may be busy when the carrier request is made, and it may be some time (*e.g.*, six – weeks or longer) before the supporting documentation is supplied to the carrier.

A carrier obviously should not be penalized (*i.e.*, receive less time for installation) because a PSAP requires additional time to provide documentation that the Commission has determined is appropriate.[38] Accordingly, Sprint PCS requests that the Commission clarify that the six month implementation period will be tolled during the period that the PSAP requires to assemble the supporting appropriate documentation. However, to minimize any potential delay,

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[34] 47 C.F.R. § 20.18(j).

[35] *Richardson Order* at ¶ 17.

[36] *See* 47 C.F.R. § 20.18(g)(2).

[37] *See Richardson Order* at ¶¶ 13 and 30.

[38] *See id.* at ¶ 30.

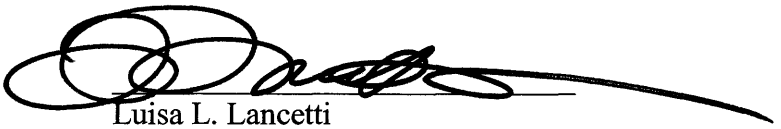
the Commission should also encourage all PSAPs to submit their documentation with their request.

III. CONCLUSION

For the foregoing reasons, Sprint PCS respectfully requests that the Commission expeditiously revise and clarify the *Richardson Order* as discussed above. Sprint PCS submits that its proposals would ensure that Phase II service is implemented efficiently and will allow Phase II systems to become operational as soon as possible.

Respectfully submitted,

SPRINT SPECTRUM L.P., d/b/a Sprint PCS



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